

[April]

28

4/13 Shipment

	6 day mor.				11 day mor.			
	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀
100 R♂ + 100 N♀	42%			13%	79%			34%
100 N♂ + 100 R♀		17%	31%			77%	84%	

Egged 11th day

R♂ + N♀	31♀	31 em	no hatch
N♂ + R♀	3♀	none	—

4/18 Shipments

	6 day mor.				9 day mor.			
	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀
100 R♂ + 100 N♀	32%			21%	88%			50%
100 N♂ + 100 R♀		34%	31%			66%	62%	

Egged 9th day

R♂ + N♀	45♀	45 em	No hatch
N♂ + R♀	36♀	none	—

Shipments 4/21 and 4/24-25:

We did not have sufficient N flies for a test. To check on sterility we cross mated them with N flies when some did emerge.

4/21 shipment after 12 days 25 R♀ left out of 100 R♀ laid No eggs.

4/24-25 shipment after 9 days 8 R♀ left out of 100 R♀ laid No eggs

except in the house department and

4/21 Shipment

100 1 day old N[♀]'s were put with the R[♂] when the R[♂] were 6 days old. on the 6th day The 80 N[♀]'s left produced 80 em No hatch.

4/24-25 Shipment

100 1 day old N[♀]'s were mated with R[♂]'s when the R[♂]'s were 3 days old. on the 6th day 75 N[♀]'s produced 75 em No hatch.

Bush:

There are a few things I wish to mention concerning the work here.

You have the letter from Mr. Darden concerning his recalibration of the Cobalt source. As I told you before we are using a 22 minute sterilization period for the 5,000 r group and 33 minutes for the 7,500 r. Formerly we had used a 31 minute period for the 7,500 r. treatment, and are now using 33 minutes for that amount of irradiation because we are passing 5,000 r on 22 minutes.

~~The~~ In regard to the ~~pupal~~ flies emerging before arrival on Curacao, I'm not sure what's the cause of that. Since our constant temperature cabinet has no cooling system it cannot be held on a constant 80°. The temperature will go up to 86° sometimes. It has to vary some ~~with~~ from the temperature within and without. We have spread out the pupae more thinly now so that there won't ~~shouldn't~~ be any accumulation of heat in any group. Also we are stenciling all boxes in heavy red letters cautioning against leaving in sunlight or extreme temperatures. This may help some in shipment. There's no better place here to keep the pupae at a constant 80° except in the house department and

in there they use insecticides and that
wouldn't be suitable. I have rigged up the
old hull of a refrigerator with an
evaporator in the top. I think it will
work better than the other cabinet because
there's more space in it, but haven't
quite finished it and am not sure until it's tried.

I regret that we didn't get those 4
shipments ^{per week} but during the last two weeks.
but if those we shipped emerged good it
was enough. We have tried hard and
have learned a few things better also.

Just that change from the second to third
day seems to work wonderfully, better than
changing at just 3 days or 2 and 4 days.
It's easier too because then it requires only a
few fans. Hopkins and I now think we
can double the production but we should
run several more cultures before we can
say for sure.

I notice that Al said they could fly more
any afternoon now, but we will continue with
the 4 shipments per week until you notify us not
to.

You will note that 73 larvae hatched from 62
egg masses in the cross mating control for the 4/27
shipment. You saw there was no slip-up on that
but am at a loss as to explain for the small hatch.

Dave

30
4/27/6
12

4/27 shipment

R Flies Em 4/30 87%

	4 day mor				7 day mor				14 day mor.			
	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀
90 R♂ + 90 N♀	38%			10%	80%			14%	90%			31%
100 N♂ + 100 R♀		18%	36%			33%	64%			53%	94%	

Egged 14th day

R+N 62 N♀ 62 em

N+R 6 R♀ none

73 larvae hatched

4/28 shipment

R Flies Em 4/30 51%

	4 day mor				7 day mor				14 day mor			
	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀	R♂	N♂	R♀	N♀
100 R♂ + 100 N♀	35%			9%	47%			9%	87%			30%
100 N♂ + 100 R♀		21%	26%			39%	60%			62%	98%	

Egged 14th day

R+N 70 N♀ 68 em no hatch

N+R 2 ♀ none

